NORTH CENTRAL FOREST EXPERIMENT STATION

Research Note NC-324

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FOREST AREA IN NEBRASKA, 1983

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ABSTRACT.--The 1982 forest inventory of Nebraska showed that 1.5 percent of the total land area is forested. Commercial forest land accounted for 75 percent or 537,837 acres of the forest land and ponderosa pine is the major forest type. An important Nebraska resource is the 262,230 acres of natural wooded strips.

KEY WORDS: Commercial forest land, noncommercial forest land, wooded strips, land use, forest type.

One out of every 68 acres in Nebraska is forested--a total of 718,307 acres. Most of the forest area is along the Niobrara, North Platte, Missouri, and Republican Rivers. An area of 537,837 acres, 75 percent of the total forest area, is suitable for producing timber crops and is classified as commercial forest land.[1] The following tabulation shows the area of land and water in the State by land use:

Land use	Area (In thousand acres)
Commercial forest	537.8
Unproductive forest	162.3
Productive-reserved forest	18.2
Nonforest with trees	1,111.7
Cropland	25,484.6
Pasture and range	20,246.0
Other	1,491.5
Census water[2]	455.1
Total land and water[2]	49,507.2

[1]*Forest land that is producing or is capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation.*

[2]*U.S. Department of Commerce, Bureau of Census. 1980.*

The ponderosa pine forest type is most prevalent, growing on 27 percent (146,100 acres) of the commercial forest area, primarily located in the western counties bordering South Dakota and Wyoming. The elm-ash-cottonwood forest type covers an additional 23 percent or 122,000 acres:

Forest type	Area of commercial forest land (Thousand acres)
Ponderosa pine	146.1
Elm-ash-cottonwood	122.0
Cottonwood	82.8
Lowland plains hardwoods	76.5
Eastern redcedar-hardwood	42.2
Bur oak	37.4
Oak-hickory	24.7
Nonstocked	6.1
Total	537.8

The most heavily forested county in Nebraska is Dawes County, which has 48,064 acres of commercial forest--5.4 percent of the land area (table 1).

Noncommercial forest land[3] totaled 180,470 acres in 1983. The productive-reserved[4] area increased from 13,800 acres in 1955 to 18,200 acres in 1982. The largest concentration of this reserved forest

[3]*Unproductive forest land incapable of yielding crops of industrial wood because of adverse site conditions, productive public forest land withdrawn from commercial timber production through statute or administrative regulation, and Christmas tree plantations.*

[4]*Land sufficiently productive to qualify as commercial forest land but withdrawn from timber utilization through statute or administrative designation, or through exclusive use for Christmas tree production as indicated by annual shearing.*

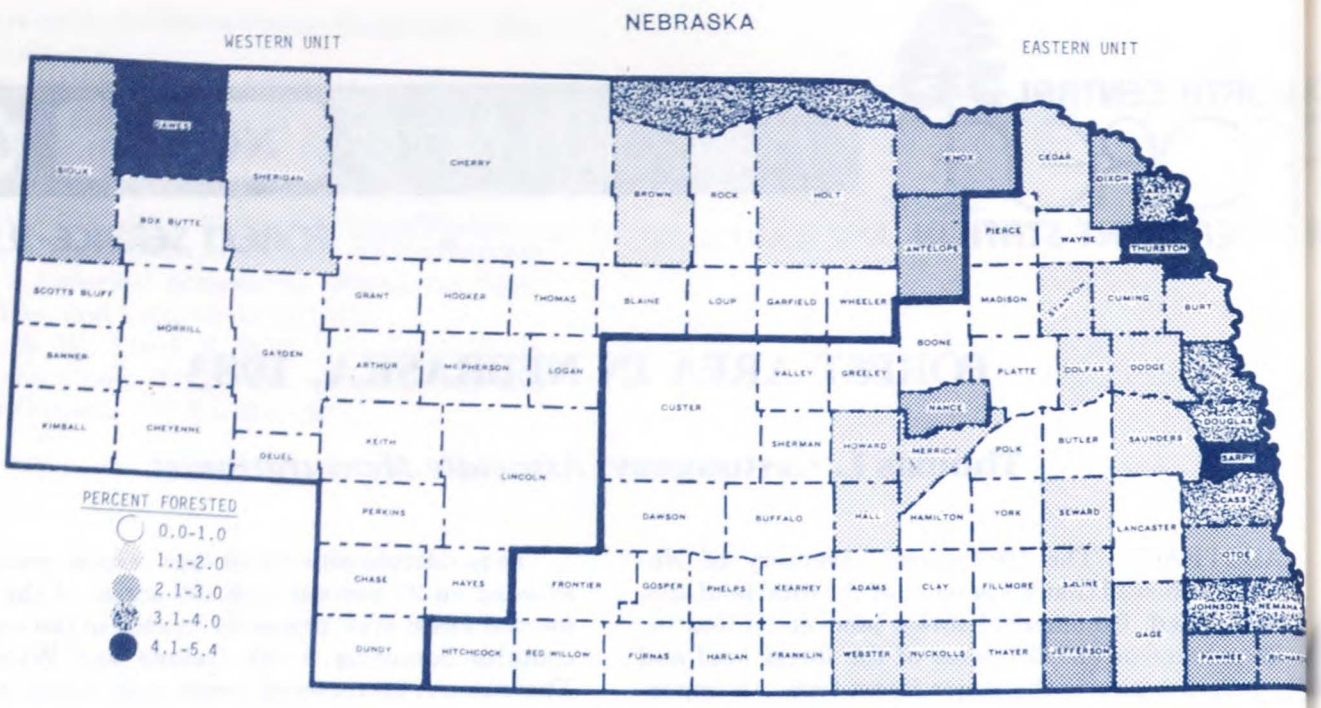

Figure 1.--*Percent of commercial forest land by county, Nebraska, 1982.*

land is in the Nebraska National Forest and the Agate Fossil Beds National Monument in Sioux and Dawes Counties. The remaining area of noncommercial forest land is unproductive forest land, too poor to grow timber crops.

An important resource not classified as forest land area is the nonforest-with-trees category[5], including the 262,230 acres of natural wooded strips. Wooded strips meet all the requirements for commercial forest land except they are less than 120 feet wide:

Nonforest with trees land class	Area of nonforest with trees (Thousand acres)
Improved pasture	582.5
Wooded strip	262.2
Windbreak	139.1
Wooded pasture	78.3
Cropland	41.8
Marsh	7.8
Total	1,111.7

[5]*Area of land with trees but less than 16.7 percent stocked, and/or area less than 120 feet wide, i.e., cropland with scattered trees, improved pasture with scattered trees, wooded strips, windbreaks, and idle farmland with scattered trees.*

Sampling error for this survey was 6 percen the area of commercial forest land.

The information in this note comes from the Nebraska forest inventory made during 1982 1983 by the North Central Forest Experiment tion.

Table 1.--Area of land and forest land by county, Nebraska, 1983

EASTERN UNIT

County	Land area[1]	Forest land[2]				Nonforest land with trees[5]			
		All forest	Non-commercial[3]	Commercial[4]	Percent commercial forest	All nonforest with trees	Wooded strips[6]	Other nonforest with trees	Percent nonforest with trees
	Acres				Percent	Acres			Percent
Adams	360,864	2,692	407	2,285	0.6	10,083	2,603	7,480	2.8
Boone	439,942	2,954	387	2,567	0.6	9,481	1,875	7,606	2.2
Buffalo	605,062	10,721	3,956	6,765	1.1	4,066	729	3,337	0.7
Burt	310,982	6,026	1,170	4,856	1.6	9,208	2,614	6,594	3.0
Butler	373,888	4,490	930	3,560	1.0	2,090	618	1,472	0.6
Cass	356,506	16,361	3,971	12,390	3.5	16,072	3,779	12,293	4.5
Cedar	473,626	7,915	2,122	5,793	1.2	16,541	4,849	11,692	3.5
Clay	367,309	2,038	360	1,678	0.5	3,482	913	2,569	0.9
Colfax	262,618	4,729	1,222	3,507	1.3	1,814	642	1,172	0.7
Cuming	367,725	6,437	964	5,473	1.5	7,143	2,045	5,098	1.9
Custer	1,645,619	18,822	5,806	13,016	0.8	49,788	14,241	35,547	3.0
Dakota	164,864	7,841	1,887	5,954	3.6	7,257	1,417	5,840	4.4
Dawson	628,429	13,840	7,669	6,171	1.0	8,760	3,307	5,453	1.4
Dixon	303,494	10,108	2,263	7,845	2.6	11,716	3,838	7,878	3.9
Dodge	341,779	8,294	2,248	6,046	1.8	14,104	3,738	10,366	4.1
Douglas	212,941	8,444	1,611	6,833	3.2	10,212	1,951	8,261	4.8
Fillmore	368,928	924	182	742	0.2	456	136	320	0.1
Franklin	368,704	4,090	603	3,487	0.9	14,169	3,786	10,383	3.8
Frontier	624,403	3,832	2,402	1,430	0.2	10,018	2,397	7,621	1.6
Furnas	461,389	5,237	1,908	3,329	0.7	5,614	1,880	3,734	1.2
Gage	549,139	9,218	1,502	7,716	1.4	34,820	11,382	23,438	6.3
Gosper	294,886	697	220	477	0.2	347	130	217	0.1
Greeley	365,062	528	205	323	0.1	3,667	1,316	2,351	1.0
Hall	343,533	5,271	1,573	3,698	1.1	5,793	1,869	3,924	1.7
Hamilton	347,264	2,876	916	1,960	0.6	2,309	420	1,889	0.7
Harlan	355,277	4,006	1,072	2,934	0.8	1,601	445	1,156	0.5
Hitchcock	453,702	4,227	1,459	2,768	0.6	7,257	2,172	5,085	1.6
Howard	361,075	5,523	1,580	3,943	1.1	19,210	6,581	12,629	5.3
Jefferson	367,693	13,721	2,946	10,775	2.9	12,887	3,441	9,446	3.5
Johnson	240,999	9,734	2,361	7,373	3.1	14,696	3,947	10,749	6.1
Kearney	331,910	224	72	152	--	120	24	96	--
Lancaster	536,973	6,803	1,966	4,837	0.9	25,488	9,561	15,927	4.7
Madison	368,224	3,152	858	2,294	0.6	7,780	2,652	5,128	2.1
Merrick	305,971	7,911	3,315	4,596	1.5	9,005	2,918	6,087	2.9
Nance	281,235	10,259	2,586	7,673	2.7	4,795	1,074	3,721	1.7
Nemaha	261,453	11,430	3,067	8,363	3.2	11,123	3,854	7,269	4.3
Nuckolls	368,429	5,475	1,381	4,094	1.1	6,034	1,678	4,356	1.6
Otoe	393,843	10,989	2,275	8,714	2.2	14,128	4,604	9,524	3.6
Pawnee	276,864	9,696	2,845	6,851	2.5	11,584	2,982	8,602	4.2
Phelps	345,530	532	71	461	0.1	302	66	236	0.1
Pierce	367,834	3,047	1,116	1,931	0.5	5,129	1,879	3,250	1.4
Platte	428,314	4,585	780	3,805	0.9	2,642	500	2,142	0.6
Polk	279,763	3,560	1,154	2,406	0.9	1,483	347	1,136	0.5
Red Willow	459,712	3,669	698	2,971	0.6	2,125	403	1,722	0.5
Richardson	353,734	13,450	3,599	9,851	2.8	8,636	2,681	5,955	2.4
Saline	368,307	7,371	1,794	5,577	1.5	6,876	1,890	4,986	1.9
Sarpy	152,422	8,573	1,885	6,688	4.4	14,493	4,764	9,729	9.5
Saunders	481,792	10,524	3,357	7,167	1.5	11,513	3,488	8,025	2.4

(Table 1 continued on next page)

(Table 1 continued)

County	Land area[1]	Forest land[2]				Nonforest land with trees[5]			
		All forest	Non-commercial[3]	Commercial[4]	Percent commercial forest	All nonforest with trees	Wooded strips[6]	Other nonforest with trees	Percent nonforest with trees
	Acres				Percent		Acres		Percent
Seward	368,109	5,393	1,106	4,287	1.2	5,139	1,275	3,864	1.4
Sherman	360,640	3,603	1,486	2,117	0.6	19,471	6,594	12,877	5.4
Stanton	275,712	5,712	1,936	3,776	1.4	10,766	2,722	8,044	3.9
Thayer	368,026	5,147	1,527	3,620	1.0	2,427	561	1,866	0.7
Thurston	250,003	14,166	3,156	11,010	4.4	7,462	2,181	5,281	3.0
Valley	363,091	1,549	512	1,037	0.3	4,107	1,408	2,699	1.1
Washington	247,174	13,488	2,814	10,674	4.3	14,764	3,881	10,883	6.0
Wayne	283,622	1,787	302	1,485	0.5	3,836	1,365	2,471	1.4
Webster	368,141	7,023	1,113	5,910	1.6	10,411	3,007	7,404	2.8
York	368,486	1,182	284	898	0.2	4,122	1,598	2,524	1.1
Total	22,333,016	381,896	102,957	278,939	1.2	540,422	159,018	381,404	2.4
				WESTERN UNIT					
Antelope	549,459	12,917	3,028	9,889	1.8	17,253	2,290	14,963	3.1
Arthur	454,752	323	--	323	0.1	54	--	54	--
Banner	478,208	5,507	2,151	3,356	0.7	11,534	852	10,682	2.4
Blaine	457,235	1,399	268	1,131	0.2	3,077	356	2,721	0.7
Box Butte	689,280	84	--	84	--	112	56	56	--
Boyd	340,666	11,762	2,511	9,251	2.7	25,205	5,129	20,076	7.4
Brown	776,864	14,682	4,284	10,398	1.3	20,933	5,280	15,653	2.7
Chase	571,853	416	191	225	--	3,282	319	2,963	0.6
Cherry	3,815,309	17,322	4,724	12,598	0.3	32,993	3,705	29,288	0.9
Cheyenne	765,370	688	--	688	0.1	9,124	544	8,580	1.2
Dawes	894,266	56,465	8,401	48,064	5.4	70,313	16,844	53,469	7.9
Deuel	279,853	282	--	282	0.1	398	168	230	0.1
Dundy	588,941	1,635	93	1,542	0.3	4,590	575	4,015	0.8
Garden	1,075,392	823	75	748	0.1	6,991	660	6,331	0.7
Garfield	365,062	1,963	407	1,556	0.4	5,306	495	4,811	1.5
Grant	495,898	--	--	--	--	--	--	--	--
Hayes	456,518	1,096	176	920	0.2	3,821	869	2,952	0.8
Holt	1,539,731	27,163	6,702	20,461	1.3	68,004	12,882	55,122	4.4
Hooker	461,197	935	154	781	0.2	939	143	796	0.2
Keith	665,037	3,579	24	3,555	0.5	8,438	1,324	7,114	1.3
Keya Paha	491,898	22,449	6,484	15,965	3.2	32,982	9,831	23,151	6.7
Kimball	609,254	441	83	358	0.1	5,752	272	5,480	0.9
Knox	707,494	28,630	7,277	21,353	3.0	50,154	11,693	38,461	7.1
Lincoln	1,616,301	12,199	3,040	9,159	0.6	29,383	4,008	25,375	1.8
Logan	365,523	1,216	335	881	0.2	645	54	591	0.2
Loup	367,392	902	284	618	0.2	3,319	780	2,539	0.9
McPherson	549,984	301	51	250	--	263	28	235	--
Morrill	899,174	6,441	3,695	2,746	0.3	14,490	2,652	11,838	1.6
Perkins	566,150	--	--	--	--	--	--	--	--
Rock	642,106	5,671	1,366	4,305	0.7	8,715	1,183	7,532	1.4
Scotts Bluff	464,115	9,396	4,830	4,566	1.0	20,999	3,052	17,947	4.5
Sheridan	1,569,773	37,128	5,675	31,453	2.0	47,037	7,266	39,771	3.0
Sioux	1,324,518	44,921	8,934	35,987	2.7	38,496	6,464	32,032	2.9
Thomas	456,576	4,980	1,556	3,424	0.7	17,605	1,839	15,766	3.9
Wheeler	367,955	2,695	714	1,981	0.5	9,085	1,599	7,486	2.5
Total	26,719,104	336,411	77,513	258,898	1.0	571,292	103,212	468,080	2.1
All counties	49,052,120	718,307	180,470	537,837	1.1	1,111,714	262,230	849,484	2.3

[1] U.S. Bureau of Census, 1980.

[2] Land at least 16.7 percent stocked by forest trees of any size or land formerly having such tree cover. Excludes land currently developed for nonforest use such as urban or heavily settled residential or resort areas, city parks, orchards, improved roads, or improved pasture. The minimum forest area classified was 1 acre. Roadside, streamside, and shelterbelt strips of timber with a crown at least 120 feet wide and unimproved roads and trails, streams, and clearings in forest area if less than 120 feet wide were classified as forest.

[3] Unproductive forest land incapable of yielding crops of industrial wood because of adverse site conditions, and productive public forest land withdrawn from commercial timber production through statute or administrative regulation, and Christmas tree plantations.

[4] Forest land producing or capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation.

[5] Area of land with trees but less than 16.7 percent stocked, and/or area less than 120 feet wide, i.e., cropland with scattered trees, improved pasture with scattered trees, wooded strips, windbreaks, and idle farmland with scattered trees.

[6] An acre or more of continuous forest land that would otherwise meet the standards for commercial forest land except that it is less than 120 feet wide.

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